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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,518	08/27/2001	Paul Walter Baier	449122009400	4278
29177 7590 05/28/2008 BELL, BOYD & LLOYD, LLP P.O. BOX 1135 CHICAGO, IL 60690				
EXAMINER				
TRAN, KHANH C				
ART UNIT		PAPER NUMBER		
2611				
MAIL DATE		DELIVERY MODE		
05/28/2008		PAPER		

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* PAUL WALTER BAIER,  
MARTIN HAARDT, and MARTIN WECKERLE

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Appeal 2007-4500  
Application 09/889,518  
Technology Center 2600

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Decided: May 28, 2008

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Before ANITA PELLMAN GROSS, ROBERT E. NAPPI,  
and JOHN A. JEFFERY, *Administrative Patent Judges*.

NAPPI, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 6 of the final rejection of claims 1 through 5, 8 through 13, 16 through 22, and 27.

We reverse the Examiner's rejections of these claims.

## INVENTION

The invention is directed to a system where information about a user signal and an interference signal are obtained. This information is used for directional transmission and reception of the user signals. See page 1 of Appellants' Specification. Claim 1 is representative of the invention and reproduced below:

1. A method for the wireless data transmission using at least one transmitter and at least one receiver, the receiver having one or more receiving antennas comprising:
  - utilizing information on received interference signals to improve the quality of transmission of the data transmission;
  - obtaining quantitative information about received user signals from the received signals of one of the antennas by using a first signal processing algorithm; and
  - obtaining quantitative information about the received interference signals from the received signals of one of the antennas and the quantitative information obtained about the received user signals by using a second signal processing algorithm wherein the quantitative information about the received interference signals is used to generate a directional pattern for transmission at the receiver.

## REFERENCES

Smith	US 6,009,124	Dec. 28, 1999 (filed Sep. 22, 1997)
Raleigh	US 6,144,711	Nov. 7, 2000 (filed Aug 27, 1997)
van Heeswyk	US 6,333,947 B1	Dec. 25, 2001 (filed Nov. 25, 1998)

### REJECTIONS AT ISSUE

Claims 1, 2, 17, and 27 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Smith. The Examiner's rejection is on pages 5 and 6 of the Answer.

Claims 3 through 5 and 18 through 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith in view of van Heeswyk. The Examiner's rejection is on pages 7 and 8 of the Answer.

Claims 8 through 13, 16, 21, and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith in view of Raleigh. The Examiner's rejection is on pages 9 through 11 of the Answer.

Throughout the opinion, we make reference to the Brief (received June 21, 2004) Reply Brief (received May 1, 2007) and the Answer (mailed July 13, 2007) for the respective details thereof.

### ISSUES

Appellants contend, on pages 4 through 10 of the Brief, that the Examiner's rejection under 35 U.S.C. § 102(e) is in error. Appellants argue that Smith does not disclose obtaining quantitative information about the received user signal and obtaining quantitative information about the received interference signal from the received signal and the quantitative information about the received user signal, as recited in the claims. (Br. 8.)

Appellants state that the Examiner regards Smith's Received Signal Strength Indicator (RSSI) as information about the received user signals and the RSSI and the Bit Error Rate (BER) as information about the received interference signal. Appellants argue that the Examiner's finding that this

meets the claimed information is flawed, reasoning that if the RSSI signal is information about both the user signal and the interference signal, it would not be possible to obtain information about the received interference signal from the received signal and the information about the received user signal, as claimed. (Br. 9.)

Thus, Appellants' contentions present us with the issue of whether the Examiner erred in determining that Smith discloses obtaining quantitative information about the received user signals from the received signals and quantitative information about the received interference signals from both the received signals and the quantitative information about the user signals. We note that while Appellants present additional arguments which raise additional issues, this issue is dispositive of the appeal, and we therefore need not address the additional issues.

## ANALYSIS

Appellants' arguments have persuaded us of error in the Examiner's rejection of claims 1, 2, 17, and 27 under 35 U.S.C. § 102(e). Independent claim 1 recites "obtaining quantitative information about received user signals from the received signals" and "obtaining quantitative information about the received interference signals from the received signals of one of the antennas and the quantitative information obtained about the received user signals." Thus, the scope for the claim includes two steps of obtaining information. The first step obtains information about the "received user signal" which is obtained from the received signal. In the second step, information about the "received interference signals" is obtained using both the information obtained in the first step, obtained quantitative information

on the user signal, and the received signal. Independent claim 27 is directed to a system which performs similar steps.

The Examiner states that Smith implements beam steering of the antenna based upon “*two interference indication signals: the BER and the RSSI* [Emphasis added]. In view of that, the BER and RSSI are representative of quantitative information about the received interference signals ... Furthermore, since the BER and RSSI signals are two interference indication signals, clearly, the quantitative information about the interference signals is not only obtained from the received signal, but additionally from the information about the received user signal.” (Ans. 13-14.)

We disagree with the Examiner’s rationale. The Examiner has not shown where Smith teaches first obtaining information about the user signal. Nor has the Examiner shown that this information is used to generate the BER and RSSI, which the Examiner equates to the claimed quantitative information about the interference signal. Further, we note that Smith describes the BER and RSSI as “generated from the received data by well known methods.” (Col. 3, ll. 64-65.) The Examiner has not presented evidence to support a finding that such well known methods determine the BER and RSSI for an interference signal based upon quantitative information about a user signal, as claimed. Accordingly, Appellants’ arguments have persuaded us that the Examiner erred in determining that Smith discloses obtaining quantitative information about the received user signals from the received signals and quantitative information about the received interference signals from both the received signals and the quantitative information about the user signals. Thus, we will not sustain the

Examiner's rejection of independent claims 1 and 27, and dependent claims 2 and 17 under 35 U.S.C. § 102(e).

Similarly, we consider the Examiner's rejections of claims 3 through 5, 8 through 13, 16, and 18 through 22 under 35 U.S.C. § 103(a) to be in error. These claims are all dependent upon claim 1. The Examiner has not found, nor do we find, that either van Heeswyk or Raleigh provides teachings which would rectify the noted deficiency in the rejection of independent claim 1. Accordingly, we will not sustain the Examiner's rejections of dependent claims 3 through 5, 8 through 13, 16, and 18 through 22 under 35 U.S.C. § 103(a).

#### ORDER

For the foregoing reasons, we will not sustain the Examiner's rejections under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a). The decision of the Examiner is reversed.

#### REVERSED

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